

In the Claims:

Please cancel claims 1 and 22-23. Please amend claims 3-9, 15, 17, 19, 21, 24-25, and

32. Please add new claims 76-78. The claims are as follows:

1-2. (Canceled)

3. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $F = 1$, and wherein at the end of the exposing step the resistor has partially reacted with the laser radiation.

4. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $F = 1$, and wherein at the end of the exposing step the resistor has fully reacted with the laser radiation.

5. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $F < 1$, and wherein at the end of the exposing step the resistor has partially reacted with the laser radiation.

6. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $F < 1$, and wherein at the end of the exposing step the resistor has fully reacted with the laser radiation.

7. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $R_2 > R_1$.

8. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein $R_2 < R_1$.

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9. (Currently amended) The method of claim [[1]] 24, wherein a product of F and L does not exceed about 1 micron.

10-14. (Canceled)

15. (Currently amended) The method of claim [[1]] 24, wherein the resistor in the providing step includes an amorphous metallic material, wherein the exposing step transforms a portion of the amorphous metallic material into a crystalline metallic material within the portion of the resistor.

16. (Canceled)

17. (Currently amended) The method of claim [[1]] 24, wherein the resistor in the providing step includes a polycrystalline metal, wherein the exposing step transforms a first crystalline phase of the polycrystalline metal into a second crystalline phase of the polycrystalline metal within the portion of the resistor.

18. (Canceled)

19. (Currently amended) The method of claim [[1]] 24, wherein the resistor in the providing step includes a metallic oxide selected from the group consisting of a metal oxide and a metallic alloy oxide, wherein the exposing step reacts a portion of the metallic oxide to form a metallic component and oxygen gas within the portion of the resistor, wherein the metallic component is

the metal if the metallic oxide is the metal oxide, and wherein the metallic component is the metallic alloy if the metallic oxide is the metallic alloy oxide.

20. (Canceled)

21. (Currently amended) ~~The method of claim 1~~ A method for changing an electrical resistance of a resistor, comprising:

providing the resistor having a length L and a first electrical resistance R_1 ; and
exposing a portion of the resistor to a laser radiation for a time of exposure, wherein the portion of the resistor includes a fraction F of the length L , wherein at an end of the time of exposure the resistor has a second electrical resistance R_2 , and wherein R_2 is unequal to R_1 , and wherein after completion of said exposing the portion of the resistor to the laser radiation for the time of exposure, the portion of the resistor continues to be comprised by the resistor and contributes to the second electrical resistance R_2 , wherein the resistor in the providing step includes N layers denoted as layers 1, 2, ..., N , wherein N is at least 2, wherein layer I includes an electrically conductive material M_I for $I = 1, 2, \dots, N$, wherein layer J is in electrically conductive contact with layer $J+1$ for $J = 1, 2, \dots, N-1$, wherein the exposing step causes a portion of the electrically conductive material M_K to react with a portion of the electrically conductive material M_{K+1} to form an electrically conductive cell $C_{K,K+1}$ within the portion of the resistor, and wherein K is selected from the group consisting of 1, 2, ..., $N-1$, and combinations thereof.

22-23. (Canceled)

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24. (Currently amended) ~~The method of claim 1~~ A method for changing an electrical resistance of a resistor, comprising:

providing the resistor having a length L and a first electrical resistance R_1 ; and

exposing a portion of the resistor to a laser radiation for a time of exposure, wherein the portion of the resistor includes a fraction F of the length L , wherein at an end of the time of exposure the resistor has a second electrical resistance R_2 , and wherein R_2 is unequal to R_1 , and wherein after completion of said exposing the portion of the resistor to the laser radiation for the time of exposure, the portion of the resistor continues to be comprised by the resistor and contributes to the second electrical resistance R_2 , wherein the resistor is coupled to a semiconductor substrate.

25. (Currently amended) The method of claim 24, wherein the substrate includes an insulator and a metal plate, and an electrical structure comprising at least one of electrical wiring and a transistor, wherein the insulator is disposed between the resistor and the metal plate, wherein the metal plate is disposed between the resistor and the electrical structure, and wherein the metal plate is sufficiently thick so as to absorb a sufficient portion of the laser radiation to protect the electrical structure from the laser radiation.

26-27. (Canceled)

28. (Original) The method of claim 24, further comprising:

providing a predetermined target resistance in terms of a value R_t and a tolerance ΔR_t for

the second electrical resistance; and

testing the resistor after the exposing step to determine whether the second electrical resistance is within $R_1 \pm \Delta R_1$.

29-30. (Canceled)

31. (Previously presented) The method of claim 28, wherein during the testing step the second electrical resistance is not within $R_1 \pm \Delta R_1$, and further comprising if $(R_2 - R_1) (R_1 - R_2) > 0$ iterating such that each iteration of the iterating includes additionally testing the resistor during the exposing step to determine whether R_2'' is within $R_1 \pm \Delta R_1$, and ending the iterating if R_2'' is within $R_1 \pm \Delta R_1$ or if $(R_2'' - R_1) (R_1 - R_2'') < 0$, wherein R_2'' is a latest value of the second electrical resistance as determined by the testing.

32. (Currently amended) The method of claim ~~[[1]]~~ 24, wherein the laser radiation is selected from the group consisting of a continuous laser radiation and a pulsed laser radiation.

33. (Original) The method of claim 24, further comprising:

conductively coupling a first electrically conductive contact to the resistor;
conductively coupling a second electrically conductive contact to the resistor; and
conductively coupling an electrical circuit element to the first electrically conductive contact and to the second electrically conductive, wherein an electrical circuit is formed such that the electrical circuit includes the electrical circuit element and the resistor.

24-75. (Canceled)

76. (New) A method for changing an electrical resistance of a resistor, comprising:

providing the resistor having a length L and a first electrical resistance R_1 ;

exposing a portion of the resistor to a laser radiation for a time of exposure, wherein the portion of the resistor includes a fraction P of the length L , wherein at an end of the time of exposure the resistor has a second electrical resistance R_2 , and wherein R_2 is unequal to R_1 , and wherein after completion of said exposing the portion of the resistor to the laser radiation for the time of exposure, the portion of the resistor continues to be comprised by the resistor and contributes to the second electrical resistance R_2 ;

providing a predetermined target resistance in terms of a value R_t and a tolerance ΔR_t for the second electrical resistance; and

testing the resistor after said exposing to determine whether the second electrical resistance is within $R_t \pm \Delta R_t$.

77. (New) The method of claim 76, further comprising:

if said testing determines that the second electrical resistance is not within $R_t \pm \Delta R_t$, and if $(R_2 - R_1)(R_t - R_2) > 0$ then additionally exposing the portion of the resistor to the laser radiation for an additional period of time, resulting in the resistor having a third electrical resistance.

78. (New) The method of claim 76, further comprising:

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if said testing determines that the second electrical resistance is not within $R_1 \pm \Delta R_1$, and if $(R_2 - R_1)(R_1 - R_2) > 0$ then iterating such that each iteration of the iterating includes:

additionally exposing the portion of the resistor to the laser radiation for an additional period of time, resulting in the resistor having a new electrical resistance R_2' ;

testing the resistor after said additionally exposing to determine whether R_2' is within $R_1 \pm \Delta R_1$, and ending the iterating if R_2' is within $R_1 \pm \Delta R_1$ or if $(R_2' - R_1)(R_1 - R_2') < 0$.